Copper and Fiber Basic Technician's Kit

As an IT professional responsible for managing a hybrid copper and fiber network, you have a challenging job. You are an on-the-spot problem-solver and are always planning for future enhancements, working with both copper and fiber to seamlessly upgrade the network to higher speeds while continuously troubleshooting and optimizing the current infrastructure. As your project requirements grow and your personnel and budgetary resources shrink, Fluke Networks' Copper and Fiber Basic Technician's Kit (MS2-FTK) provides a robust set of tools to help you expertly manage your network to it keep it running smoothly – and inexpensively. The MS2-FTK has all the testing and troubleshooting instruments you need to:

Copper

- Graphically display wiremap, length, cable ID, and distance to fault on one screen
- Test all common copper media types including RJ11, RJ46, Coax, with no need for adapters
- Locate virtually any cable or wire pair with IntelliTone™ digital and analog toning
- Verify today's media services, including 10/100/1000 Ethernet, POTS, and PoE

Fiber

- Quickly verify optical loss and power levels with single-port, simultaneous dual wavelength testing over six wavelengths (850, 1300, 1310, 1490, 1550, 1625)
- Conduct efficient cable routing identification with SimpliFiber Pro's FindFiber® capability
- Save up to 1000 test results and upload and manage them on your personal computer via Fluke Networks' popular LinkWare Cable Test Management Software
- Track intermittent power fluctuations with the Min/Max feature

Ordering information

Model	Description
MS2-FTK	Copper and Fiber Basic Technician's Kit includes MS2-100 and FTK1000
SFSINGLEMODESOURCE	SimpliFiber Pro singlemode source
FT525	Video microscope and supplies to inspect and clean fiber end-faces for the #1 cause of link failures – microscopic contamination
FT120	Optical microscope to inspect fiber end-faces for the #1 cause of link failures – microscopic contamination
VISIFAULT	Verify and locate faults
NFC-KIT-BOX	Fiber end-face cleaning supplies

MicroScanner[2] Specifications

Test Connectors	Twisted-pair: UTP, FTP, SSTP 8-pin modular jack accepts RJ45 and RJ11 Coax: F-connector for 75 Ω, 50 Ω, 93 Ω cables
Cable Tests	Length (460 m or 1500 ft), wiremap to TIA-568A/B standards, remote ID locators
Tone Generator	IntelliTone digital tone: [500 KHz]; analog tones: [400Hz, 1KHz]
PoE Detection	Solicits and detects the presence of 802.3af compatible PoE devices
Ethernet Port Test	Advertised speed of 802.3 Ethernet ports (10/100/1000)
Power Source	Battery type: 2 AA alkaline batteries
Dimensions	3 in x 6.4 in x 1.4 in (7.6 cm x 16.3 cm x 3.6 cm)
Weight	13 ounces; 363 grams (batteries included)
Warranty	One year
M12/ RJ45 Cable Specifications:	
Cable type	Ethernet cable, Cat5e, shielded, 2 Pair AWG 26 stranded (7 wire), RAL 5021 (water blue), M12 4 pos. D- coded on RJ45 connector
Number of positions	4
Fixed cable length	2 m
Volume resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Ambient temperature	-20 ℃ to 50 ℃
Inflammability class acc to UL 94	V0
Surge voltage category	II

MicroScanner² Specifications (continued)

Pollution degree	3
Degree of protection	IP20/IP67
External cable diameter	6.7 mm
Transmission characteristics	Cat 5 (IEC 11801:2002), Cat 5e (TIA 568B:2001)

SimpliFiber Pro Specifications

General Specifications	
Temperature range	Operating: -10 ºC to 50 ºC Storage: -20 ºC to 50 ºC
Humidity range	95% (10 ºC to 35 ºC) non-condensing; 75% (35 ºC to 40 ºC) non-condensing; uncontrolled <10 ºC
Certifications	CE, CSA, N10140, Class 1 laser-safe
Dimensions	Power meter: 6.4 in x 3.2 in x 1.5 in (16.5 cm x 8.0 cm x 3.9 cm) MM/SM sources: 5.6 in x 3.2 in x 1.6 in (14.2 cm x 8.1 cm x 4.1 cm)
Weight	Power meter: 11.5 oz (325 g) MM/SM sources: 9.8 oz (278 g)
Optical Sources	
Optical output connector	Fixed SC
Emitter type	850/1300: LED 1310/1550: FP Laser FindFiber: Laser
Emitter wavelengths	850, 1300, 1310, 1490, 1550, 1625
Power output (minimum)	MM: ≥ -20 dBm SM: ≥ 8 dBm minimum; -7 dBm nominal
Power output stability (8 hours)	MM: +/- 0.1 dB over 8 hours SM: +/- 0.25 dB over 8 hours
MM battery life (2 x AA IEC LR6)	40 hours typical
SM battery life (2 x AA IEC LR6)	30 hours typical
FindFiber battery life (2 x AA IEC LR6)	80 hours typical

SimpliFiber Pro Specifications (continued)

Optical Power Meter	
Power measurement accuracy	+/-0.25 dB
Optical connector	Removable adapter; SC adapter standard; Optional adapters include LC, ST
Detector type	InGaAs
Calibrated wavelengths	850, 1300, 1310, 1490, 1550, 1625
Power measurement range	850: 10 to -52 dBm 1300, 1310, 1490, 1550, 1625: 10 to -60 dBm
Power measurement linearity	850 nm: +/- 0.2 dB; +/- 0.2 dB for power from 0 dBm to -45 dBm, +/- 0.25 dB for power < -45 dBm; 1300 nm, 1310 nm, 1490 nm, 1550 nm, 1625 nm: +/- 0.1 dB; +/- 0.1 dB for power from 0 dBm to -55 dBm, +/- 0.2 dB for power > 0 dBm and < -55 dBm
Resolution	0.01 dB
Battery life	>50 hours typical
Memory	1000 loss or power measurements
Serial communication physical interface	USB

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